Liebert®

Power Quality Systems

GXT2 700 - 6000VA

True Online Power to Keep Your Business Up and Running

Hot Swap Batteries

Online Technology

Universal Communication Options

Extensible Runtime

Professional Workstations

Small Routers, Bridges, Hubs

Data Center Rooms

Telecom Facilities

EMERSON™
Network Power

GTX2 700 - 6000VA

True Online Power to Keep Your Business Up and Running

A high-performance UPS with proven reliability, custom configurability, hot-swap internal batteries and extensible runtime in a compact rack and tower design.

The GXT2 features and flexibility make it the optimal solution for your server & data room, networking and telecom applications that require reliable, continuous and quality power.

As a true online UPS, GXT2 provides power factor correction, frequency conversion, unlimited external battery connectability, and internal automatic and manual bypass capability as well as an optional external maintenance bypass. The Liebert GXT2 is designed with the features needed to protect mission-critical equipment from all power problems, such as sags, surges, spikes, outages, noise, frequency variations and waveform distortion.

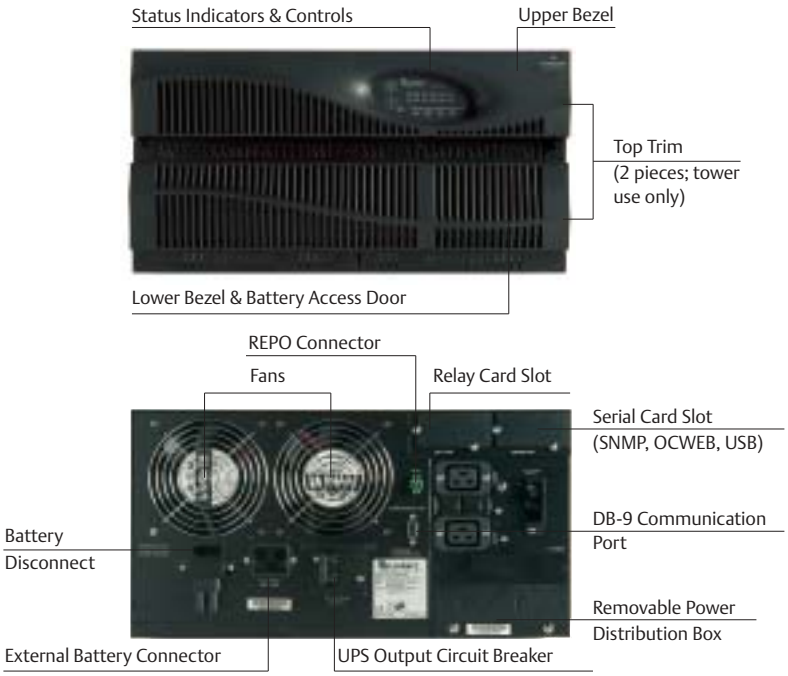
Applications

- LAN and WAN servers
- Clustered network equipment: hubs, routers, bridges
- Remote telecommunications units
- Office Telecommunications systems
- Voicemail and e-mail servers
- Test and diagnostic equipment
- Engineering network servers
- Factory floor protection of micro processor-controlled equipment
- Mission critical devices

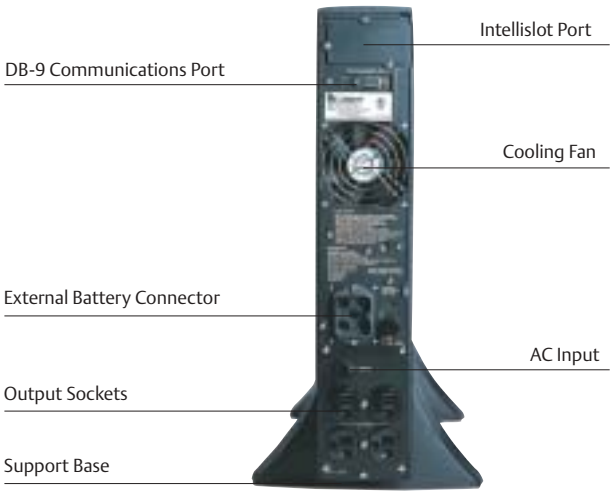
Key Benefits

- Online VFI Technology With Sinewave Output
- Extended Battery Options for Long Runtimes
- USB, Serial and Network Communications
- Power Factor corrected input
- Advanced Early Warning Shutdown with MultiLink software
- Minimum Five Minutes of Battery Backup Time
- User Configurable Settings, Voltage & Frequency
- Hot-Swappable, User Replaceable Batteries
- Cold-start on Battery
- Remote UPS Monitoring through SNMP/Web Card
- Compact Design in 2U size up to 3000VA
- Optional Bypass Box for Easy Maintenance

True Online Power to Keep Your Business Up and Running



GXT2 Rack Mode (5U, 4500-6000VA version shown)



GXT2 Tower Mode (2U, 700-3000VA version shown)

The Right Features in Just the Right Size

On-line design means zero transfer time from external to internal power. When utility power fails, your critical load remains supported by a seamless flow of power from the GXT2.

For maximum control, the GXT2 is custom configurable to your needs using a specially designed Windows software package. Offered in 700, 1000, 1500, 2000, 3000, 4500, and 6000 VA capacities, the GXT2 also provides easy serviceability with user replaceable batteries. And all this is available in one of the most affordable UPS systems in its class.

Quality Power

The Liebert GXT2 is a true on-line power source, so whatever the quality of power coming in - the pure sinewave output meets the exacting standards of your equipment.
Unlike other UPS technologies, the GXT2's design handles all these potential power problems:

- Power spikes and transients
- EMI/RFI noise
- Voltage sags and brownout conditions
- Harmonics
- Power-factor corrected loads
- Outages

Built-In Reliability

The GXT2 is designed from the inside out for maximum reliability. It includes operating features that simply are not available on other units in its price range:

- Power-factor corrected loads:
  The GXT2 maintains stable voltage output even with the power-factor corrected loads typical of modern computer equipment.
- Frequency conversion:
  Allows 60Hz input/50Hz output or 50Hz input/60Hz output with no derating.
- Unlimited external battery connectability:
  Any number of 2U/4U battery cabinets can be added to supply additional battery time.
- Internal automatic and manual bypass capability:
  Assures continuity of power to critical loads during system problems or maintenance.
- Optional Maintenance Bypass and Output Power Distribution Box:
  Allows for easy maintenance and safe operation on UPS or connected equipment during installation and routine service operations.

Sophisticated Protection in an Easy-To-Use Package

The GXT2 is easy to install...easy to set up...and even easier to use. It features simple operation for uncom-plicated, error-free operation. A front-mounted panel displays: system status, load levels, battery time remaining and any alarm conditions.

For maximum flexibility, the GXT2 can be easily installed as a space-saving, rack-mounted unit or as a compact freestanding tower. This versatility allows it to be used to protect networks, servers, telecommunications equipment or industrial process equipment just about anywhere.

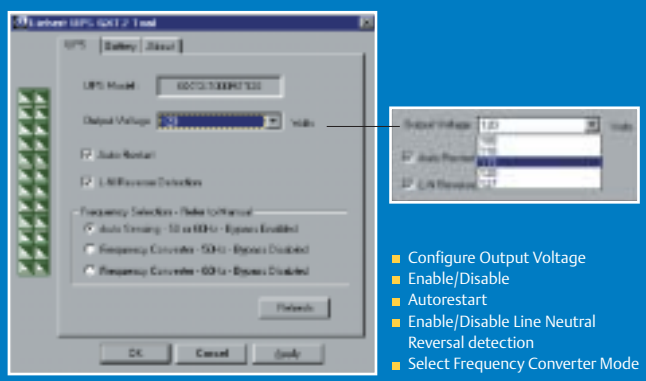
In order to fully protect your network, a UPS must be able to deal with different types of power input, including imperfect power from your electric utility, the variable output of most standby generators, and harmonics from inside the building or even from your own network equipment - or no input at all, providing power directly from the internal batteries (black start function). The Liebert GXT2 is designed to handle all these situations. If a UPS can't provide proper protection under these conditions, then it isn't providing complete protection.

A New View on Configuring Your UPS

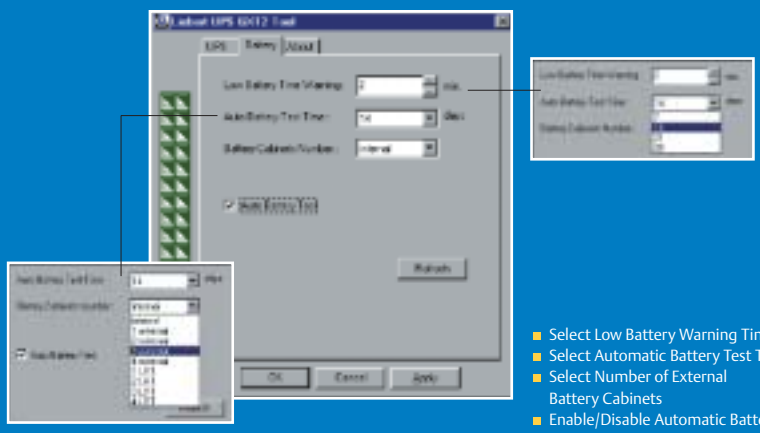
Each GXT2 is shipped with a Windows® software program that allows the user to program a variety of operating parameters. This capability allows you to customize the GXT2's performance to your specific requirements, providing a new level of power protec-tion control and adaptability.

The software allows configuration of the following:

- Output voltage selectable: 200, 208, 220, 230, 240V
- Enable or disable auto restart
- Enable or disable line-neutral reversal detection
- Select frequency converter mode:
  - 60Hz input/50Hz output with no derating, bypass is disabled
  - 50Hz input/60Hz output with no derating, bypass is disabled
- Change the low battery warning from the standard 2 minutes
- Select how often you want the automatic battery test to occur
- Disable automatic battery test if desired
- Program the UPS for the number of external battery cabinets connected, allowing the UPS to report the correct run time.



- Configure Output Voltage
- Enable/Disable
- Autorestart
- Enable/Disable Line Neutral Reversal detection
- Select Frequency Converter Mode



- Select Low Battery Warning Time
- Select Automatic Battery Test Time
- Select Number of External Battery Cabinets
- Enable/Disable Automatic Battery test

Communications for Power Monitoring and Control

The GXT2 offers a variety of communications options to provide the monitoring and control capabilities demanded by today's network computing systems.

Intellislot® SNMP/Web Card

For enhanced UPS communications and control, the Intellislot SNMP/Web Card will deliver SNMP and web-management communications capability to your GXT2 unit. This feature will provide flexibility in how you monitor and control your UPS over the network.
The card is also easily configurable to work in a standard SNMP implementation and with Liebert's MultiLink unattended shutdown software.

SNMP/Web Card monitors a wide range of UPS information, allowing users to monitor, control, and manage their GXT2 UPS over the network via the Web and SNMP.

Intellislot USB Adapter Card (USBCARD)

This hot-installable card provides a USB interface port for use with Microsoft Windows 2000 and XP Power Management, providing graceful unattended shutdown of your connected equipment without the need to install any additional software. The USB card kit includes a 6-foot USB cable.

Intellislot Multiport Kit (Multiport4)

The Multiport4 Card is a hot-installable card that splits the UPS contact signals into four isolated sets of contact closure signals, enabling the user to interface with MultiLink Shutdown software on four servers simultaneously.

Intellislot Interface Kit for Relay Contacts (Relaycard-Int)

Provides 4 volt-free, relay contact signals for "On Battery", "Low Battery", "On Bypass", "UPS Fault", and "Summary Alarm" status. The card can be hot-installed, and connections are through a DB25F connector.

Automatic Responses for every UPS event may be customized

Configuration details appear in the bottom window pane when the event and response type are selected

MultiLink™ Shutdown Software

Your GXT2 UPS system can be used with Liebert MultiLink shutdown software. This package automatically shuts down computer operating systems in a smooth and orderly manner if UPS battery capacity runs low.

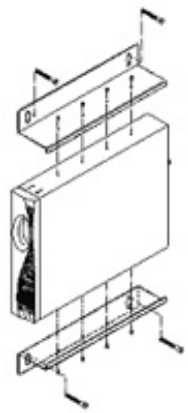
Multilink automated shutdown software performs the critical task of protecting information for one computer or a network. It is available in both single and multi-user versions and is designed to run on a wide variety of operating platforms. During an extended utility failure, MultiLink automatically shuts down computer operating systems in a smooth and orderly manner if UPS battery capacity runs low. MultiLink is designed to keep users informed. Notification about critical alarms can be sent to alphanumeric pagers or directly to the computer screen via pop-up messages.
MultiLink may be configured for either in-band or out-of-band operation. Using the network to send alarm messages and data can dramatically reduce cable and installation costs. Alternatively, separate communications cables can be run to each computer when network wiring is a concern.

A Complete Set of Rack and Wall Mount Options

The GXT2 series is complemented by a full set of rack and wall mount accessories designed to make it easy to use the UPS in any data-room, telecom or switch-gear cabinet.

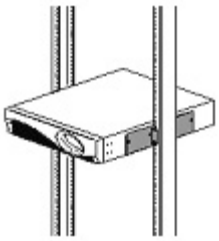
Wall Mount Bracket Kit for GXT 2U

The WMBKT2U kit is steel bracket painted black that allows any GXT 2U UPS or 2U Battery Cabinet to be mounted to a wall. One bracket kit is required for each UPS or Battery Cabinet. Hardware to mount brackets to UPS is supplied. Hardware to attach brackets to wall must be supplied by the installer.



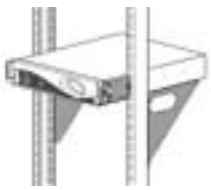
Telecom Rack 2U Kit (2UTELECOMRKIT)

Center Mount brackets for 19" wide telecom/relay racks (For Use with GXT2U Only). The 2UTELECOMRKIT contains two metal brackets which mount (1) GXT2 UPS or Battery Cabinet into a 19" Telecom Relay Rack. One kit must be used for each 2U product that is mounted. UPS and brackets fit into 2U of space.



Rack Shelves for GXT & GXT 2U

Rack shelves allow mounting of the UPS into telecom/relay racks. The RS500 is designed to allow flush mounting of the UPS into 19" wide telecom/relay (single mounting rail type) racks. The RS600 is designed to allow center mounting of the UPS into 19" wide telecom/relay (single mounting rail type) racks. The RS700 is designed to allow flush mounting of the UPS into 23" wide telecom/relay (single mounting rail type) racks. The RS800 is designed to allow center mounting of the UPS into 23" wide telecom/relay (single mounting rail type) racks. RS600 and RS800 kits include adapter brackets for use with UPStation GXT and UPStation GXT 2U models and include hardware for mounting shelves to rack assembly.



Center Mounting (RS600 & RS800)

Flush Mounting (RS500 & RS700)

Rack Slide Kits for GXT2 Models (RMKIT18-32)

Telescoping rails that mount to the sides of the rackmount UPS to facilitate installation into a rackmount enclosure. This kit is for use with all GXT2 and associated battery cabinets. Rack kits included hardware for mounting rack slide to rack frame, hardware for mounting rack slide to UPS is included with UPS

Fixed Mounting Rails (brackets are fixed and do not slide) 201193G1L

Fixed rails mount to the front and back of a rack frame. The UPS is supported by an "L" bend in the rails and is secured in place by the bolting the UPS rack handles to the rack frame. Rail kits are adjustable from 17.5 to 32.5 inches and include hardware for mounting fixed rails to rack assembly. Hardware for mounting UPS rack handles to UPS frame is provided with UPS.

Rack Mounting Kits

RMKIT18-32	Extensible Rack Mount Kits can be fitted on racks depth 18" to 32" deep. Supports up to 90kg weight.
201193G1L	Fixed Rail Kit for 19" wide racks, adjustable from 17.5" to 32.5" depth.

Telecom / Relay Rack Shelves

2UTELECOMRKIT	Center Mount brackets for 19" wide telecom/relay racks
RS500	Flush-mount shelf for 19" wide telecom/relay racks
RS600	Center-mount shelf for 19" wide telecom/relay racks
RS700	Flush-mount shelf for 23" wide telecom/relay racks
RS800	Center-mount shelf for 23" wide telecom/relay racks

Wall Mount Kit

WMBKT2U	Wall Mount Bracket

The Solution that Gives You Exactly the Right Amount of Protection and Support

The Foundation integration system is more than "just a rack" it is the "foundation" of a mini-computer room. It is designed to deliver maximum flexibility today and to comprehensively accommodate future support needs in the rapidly changing network equipment environment.

It can start simply as a basic integration system to house and organize network components. Or you can specify it at any level of protection up tp the self-contained Foundation Mini Computer Room (MCR) by adding support systems including computer-grade air conditioning, rackumonting UPSs, (like GXT2 or PowerSure InterActive).
Monitoring capabilities and security features. The beauty of the system is that you don't have to do it all at once. These features can be incorporated from the beginning or added at a later time to help meet both your current and future requirements.

GXT2 4500-6000 in Rack and Tower Mode

GXT2 700-3000 in Rack and Tower Mode

Evolving Design

The Foundation system provides an organized, secure, controlled environment for your sensitive electronic equipment. A few of the major improvements to the Foundation over previous enclosure designs are:

Foundation Enclosure

- Adjustable Rack Rails
- Reversible Hinged Door
- Improved Cable Management
- Easy Access Side Panels
- Multiple Door Options
- Complete Upgradability

Foundation (Mini Computer Room)

- Top or 19" Rackmounting ECM Air Conditioner
- Low Sound Levels
- Energy Saving Features

Available in a variety of sizes

Technical Data - [Liebert GXT2]

Model	GXT2-700RT230	GXT2-1000RT230	GXT2-1500RT230	GXT2-2000RT230	GXT2-3KRT230E	GXT2-4500RT230	GXT2-6000RT230
Power Rating							
VA	700	1000	1500	2000	3000	4500	6000
W	490	700	1050	1400	2100	3150	4200
Dimensions & Weight							
Unit (WxDxH mm)	87 (2U) x 547 x 430				87 (2U) x 618 x 430	221 (5U) x 547 x 430	
Shipping (WxDxH mm)	268 x 692 x 585				268 x 692 x 585	560 x 690 x 500	
Weight - Unit (kg)	22.5	22.6	23.2	24.7	31.9	67	67
Weight - Shipping (kg)	26.5	26.6	27.2	28.7	35.9	76.5	76.5
Input Parameters							
Input Voltage and Frequency	220/230/240 VAC user selectable; 40-70Hz						
Voltage Range w/o Battery	119-280VAC variable depending on load					176-276VAC	
Frequency Range	40-70Hz autosensing						
Input Power Connection	IEC320-C14				IEC320-C20	Hardwired	
Output Parameters							
Output Receptacles	(4) IEC320-C13				(4) IEC320-C13+ (1) IEC320-C19	Hardwired + (2) IEC320-C19	
Waveform & Frequency	Sinewave; 50 or 60Hz N>ominal (50Hz default)						
Overload warning	200% for 8 cycles; 130% for10 seconds with transfer to bypass					>200% for 96 milliseconds; 131 - 199% for 2 seconds;112- 129% for 10 seconds with transfer to bypass	
Battery Parameters							
Type	VRLA, non spillable, flame retardant						
Approved manufacturers	China Storage Battery / CSB FR 1270 F2			Panasonic UP-VW1245P1		Yuasa / REW 28-12 FR	
Quantity x Voltage x Rating	4 x 12V x 7.0Ah			4 x 12V x 9.0Ah	6 x 12V x 9.0Ah	12 x 12V x 5Ah	
Backup Time							
Half load (minutes)	44	25	20	14	16	24	17
Full load (minutes)	17	11	7	6	6	10	7
Recharge time	5 hours to 95%					3 hours to 90%	
Batteries, other features	Hot Swap Batteries; Deep Discharge Protection; Black Start (w/o mains)						
Battery Test	Automatic, User configurable 7-28days						
Environmental							
Noise	<50dB			<55dB			
Operating temp and altitude	0-40°C; 0-3000m						
Communications	Serial RS232 standard, USB card, Relay card and SNMP/Web card optional						
Common Package	User manual, MultiLink software CD; MultiLink serial cable 3m; Rack mount handles; Tower Support base; Configuration program disk;						
Additional Components	(2) 10A IEC320-C13/ 14 Output Cables				+ (1) Schucko CEE 7/7 to IEC-320-C19 and (1) BS1363to IEC-320-C19, 16A inputpower cord	Input/output distribution PD-CEHDWR Input/output distribution with maintenance bypass PD-CEHDWRBYP (optional)	
Warranty	2 Years						
Standards & Requirements							
Safety	EN50091-1-1, CE compliance mark, for both Low Voltage and EMC Directives					EN62040-1-1; TUV/GS, CE EMC Directive	
Design, EMI/EMC, Transportation	VFI SS 111 according to IEC6204-3; EN50091-2, Class A; EN61000-4; ISTA Procedure 1A						
Extended Battery Cabinets							
Models	GXT2-48VBATT				GXT2-72VBATT	GXT2-240VBATT	
Unit (WxDxH mm)	87 (2U) x 547 x 430				87 (2U) x 618 x 430	176 (4U) x 522 x 430	
Shipping (WxDxH mm)	268 x 692 x 585				268 x 692 x 585	560 x 690 x 455	
Weight - Unit (kg)	28.3				42.5	65	
Weight - Shipping (kg)	32.3				46.5	76	
Quantity x Voltage x Rating	2 x 4 x 12V x 7.0Ah				2 x 6 x 12V x 9.0Ah	20 x 12V x 9.0Ah	
Approved Manufacturers	China Storage Battery / CSBFR 1270 F2				Panasonic/UP-VW1234P1	Yuasa / REW 45-12 FR	
Extended Backup time							
1 Cabinet (full/half load)	68 / 176	44 / 100	28 / 80	18 / 42	20 / 64	31 / 70	21 / 49
2 Cabinet (full/half load)	136 / 352	88 / 200	56 / 169	42 / 98	40 / 128	54 / 120	38 / 85
3 Cabinet (full/half load)	204 / 528	132 / 300	84 / 240	60 / 140	60 / 192	80 / 164	55 / 123
4 Cabinet (full/half load)	272 / 704	176 / 400	112 / 320	90 / 210	80 / 256	106 / 208	75 / 156

Approximate discharge times are in minutes and at 25°C with resistive load.

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